

# Proposal to host AIPS-00

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## 1 Outline of this proposal

This proposal contains the information requested in the call for proposals to host the AIPS-98 conference.

In particular, we provide further information on:

- Organizing committee
- Proposed venue/location: Summit County, CO
- The proposed conference schedule and timetable: February 2000
- The proposed budget: we describe funding sources, registration fees, and expected surplus.
- The qualifications of the proposed co-chairs and organizers: we describe our qualifications as active researchers in the field as well as in organization of similar activities.
- Plans for planning and scheduling competitions.

## 2 Organizing Committee

We propose the following organizing committee for AIPS2000.

Program Chair:	Rao Kambhampati, Arizona State University
Workshops Chair:	Craig Knoblock, USC Information Sciences Institute
Publicity Chair:	Bart Selman, Cornell University
Local Arrangements Chair:	Jana Koehler, University of Freiburg
Planning Competition Chair:	Adele Howe, Colorado State University
Scheduling Competition Chair:	Fahiem Bacchus, University of Waterloo
Activities Chair:	David Smith, NASA Ames Research Center
	Richard Korf, UCLA

### 3 Proposed Venue

We propose locating the conference at the Beaver Run Resort at Breckenridge, Colorado (not to be confused with Beaver Creek, which is near Vail, colorado). Breckenridge is in Summit County, Colorado.

The Summit County location offers excellent access by plane. The Summit county is approximately 2 hours by car from Denver International Airport, and regular van service is available.

We describe these aspects in further detail in the budget section.

### 4 Proposed Conference Schedule

We propose the following conference timetable.

AIPS2000 First Publicity and Call for Participation	Spring 1999	
	01 June 1999	Workshop Proposal Submission Deadline
	15 June 1999	Workshop Proposal Notification
	15 July 1999	Workshop Call for Participation Due
AIPS2000 and Workshops Publicity at IJCAI99 and AAAI99)	July/August 1999	
AIPS2000 Submission Deadline	15 September, 1999	
	30 October 1999	Notification of Acceptance or Rejection for AIPS2000 Submissions, Workshop paper submissions deadline
AIPS2000 Camera-ready Papers Due	15 November 1999	
	15 December 1999	Workshop acceptance/rejection notifications sent
	15 January 2000	Workshop camera-ready papers Due
Conference and Workshops	6-10 February, 2000	

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~~We propose scheduling the AIPS conference in the spring. This has the advantage of reducing~~  
competition with AAAI for papers, allows an off-cycle forum for planning researchers, and enables  
a scenic snowy mountain resort locale. The disadvantage is increased conflict with academic  
calendars.

We also propose using the electronic submission method used successfully by EWSP/ECP. Submitters will be asked to submit electronic files in camera-ready format in postscript or pdf. An extremely fast turnaround review cycle will be used in which reviewers collaborating on the review of a paper will correspond via email in the AAAI model.

We propose a three day conference format with a preceding day of workshops similar to the AIPS98 workshop. There will be a poster session on the first evening and a banquet on the second evening, as well as three invited speakers and two panels. With this format and 30 minutes per paper slot there will be 20 slots for presented papers.

Time	Sunday	Monday	Tuesday	Wednesday
0830-1000	Workshop	Intro / Speaker	Invited Speaker	Panel
1000-1030	Coffee Break	Coffee Break	Coffee Break	Coffee Break
1030-1200	Workshop	Paper Session	Paper Session	Paper Session
1200-0130	Lunch	Lunch	Lunch	Lunch
0130-0300	Free	Paper Session	Competition/Free	Paper Session
0300-0330	Free	Coffee Break	Competition/Free	Coffee Break
0330-0430	Free	Paper Session	Competition/Free	Paper Session
0430-0530	Free	Panel	Competition/Free	Invited Speaker
0700-0930	Workshop	Poster Session	Conference Banquet	Competition Results

## 5 Budget

In this section we describe preliminary budget figures. The conference administrative and budget activities will be run by JPL conference services, which runs numerous conferences each year in the Pasadena area. By using this experienced conference service organization, we expect to be able to focus our attention on the technical and program aspects of the conference to produce an extremely high quality and technically rewarding event.

Preliminary figures are based on verbal agreements of sponsorship, estimated costs (all in 1998 dollars) and cost estimates based on previous conferences run by JPL conference services. Based on our sponsorship estimates and projections, we should be able to run a modest surplus to be carried over to future AIPS conferences.

For comparison purposes, we have included a budget for an alternative to the Colorado location

Table 1: Income Calculation

Income:	
NASA Sponsorship	8000
Regular Registration Fees	
(estimated 75 @ \$250)	18750
Student Registration Fees	
(estimated 75 @ \$150)	11250
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Total Income:	38000

~~Chien, Kamphammnati, & Knoblock~~ ~~the Embassy Suites in Mandalay Beach, CA. This is a beachfront resort approximately one hour~~ ~~AIPS-2000~~ 4  
north of Los Angeles (on the coast between Malibu and Los Angeles and Santa Barbara).

Table 2: Expense Calculation

Expenses:	Summit County Colorado	Mandalay Beach California
Conference Room	0	1050
Setup: 2 OH projectors, 2 screens, pointer, microphones (3 days)	700	1225
Computer projector (to be provided by JPL)	0	0
Coffee Breaks	7600	2000
Reception (posters)	2250	2250
Conference Dinner (est. \$40/ person)	6000	6000
Total Location-specific Expenses	16550	12520
Conference Administration time (5 work weeks at \$800/week)	4000	
Registration and reception support (12 x \$75)	900	
Invited Speakers Expenses (3 @ \$2000 each)	6000	
Proceedings Publication (est 200 @ \$40 each)	8000	
Total Expenses	35450	31420

Notes:

- The conference center rooms are \$170 per night. There are also 2BR condos (sleep 6) at roughly \$300 per night. There are many other hotels in the area around 90-100 per night (double occupancy) and condos in the area. We plan to help graduate students find room-mates and use some of the sponsorship funds to provide travel grants for students.
- Cost for the conference room itself will be provided at no charge from the hotel contingent on sufficient conference bookings (typically 50 rooms).
- We hope to negotiate the three hotel rooms for invited speakers gratis from the hotel, but this cannot be confirmed until detailed dates and budget negotiations occur. This would free up approximately \$900 from the invited speaker expenses.
- We are being extremely conservative on the invited speaker costs, \$1200 is quite high for travel and accomodations, particularly if the speaker is from the west coast.
- We previously received approval from the NASA program management for NASA/JPL conference sponsorship when we submitted our AIPS98 proposal. We have also discussed support for AIPS'00 with Peter Norvig, who is now head of the NASA Ames Research Center and he has informally committed to provide support for either the conference planning and scheduling

Table 3: Net Surplus/Reserve Calculation

	Colorado	California
Total Income:	38000	
Total Expenses	35450	31420
Unused Proceedings (50 @ \$40)	2000	
Net Surplus/Reserve	4550	8580

competition, although the level of support has not yet been determined. We are also discussed possible support for the planning/scheduling competition with Nort Fowler of Rome Labs. We intend to investigate additional sponsors, both corporate and funding agencies.

- Because the minimum run of proceedings is 200, this represents an additional reserve in that the funds from selling the unused proceedings are surplus. Assuming a sales price of \$40 per copy this represents a reserve of  $50 \times \$40 = \$2000$ . In the event that there are more than 150 registrants, the surplus will be even larger because the majority of the conference expenses are fixed (proceedings and banquet are roughly \$80).

## 6 Qualifications of the Co-chairs

Brief summaries of the qualifications of the Chairs are given below.

**Dr. Steve Chien** is Technical Group Supervisor of the Artificial Intelligence Group, Advanced Information Systems Section at the Jet Propulsion Laboratory, California Institute of Technology where he leads efforts in automated planning and scheduling. His current projects include basic research and deployment of planning systems for automated science analysis, spacecraft mission planning, and Deep Space Network Antenna operations. These projects represent a technology thrust in the area of planning and scheduling at JPL with annual funding of over \$1.5 million. Dr. Chien is also an Adjunct Assistant Professor with the Department of Computer Science of the University of Southern California.

Steve has been active in the AIPS community with papers several AIPS and EWSP/ECPs.

Steve also has extensive experience in conference organization activities. He was an organizer for tracks of the 1989 and 1991 Machine Learning Workshops and 1992 and 1994 AAAI Symposia. Most recently, in 1997, he organized the First International Workshop on Planning and Scheduling for Space Exploration and Science which had almost 100 participants.

**Subbarao Kambhampati** is an Associate Professor of Computer Science and Engineering at Arizona State University, Tempe. He has been an active researcher in AI planning community for over 10 years. His dissertation work on plan reuse received the ACM Samuel Alexander prize. Based on his research in planning and machine learning, he received the NSF Research Initiation Award in 1992, and the NSF Young Investigator Award in 1994. He was the Arizona State University nominee for the 1996 Presidential Faculty Fellow award. He was an invited speaker at AAAI-96, where he delivered a talk on the status and prospectus of refinement planning. A paper based on this talk appeared in AI Magazine. He was also an invited speaker at Darpa Planning Initiative PI Meeting in 1997. His publications include 6 articles in AI Journal, 2 in Journal of AI Research, and over 50 rigorously reviewed conference papers.

Kambhampati chaired and or organized several planning-related symposia, the latest one being a very successful workshop on planning as combinatorial search, held at AIPS-98. He has served on

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~~the program committees of several national/international conferences including AAAI-92, ECP-96~~  
and AAAI-97.

**Craig Knoblock** is a Project Leader at the Information Sciences Institute and a Research Assistant Professor in the Computer Science Department at the University of Southern California. He is also on the faculty of the Integrated Media Systems Center, which is a NSF Engineering Research Center at USC. He received his Ph.D. in Computer Science from Carnegie Mellon University in 1991 and joined USC that year. His current research interests include information gathering agents, information integration, automated planning, machine learning, and knowledge discovery. For the last six years he has been working on the problem of information integration from heterogeneous data sources. He is one of the primary architects of the SIMS information mediator, which builds on work in planning, machine learning, and knowledge representation. He jointly leads the Ariadne project, which is addressing the problem of integrating internet and intranet information sources.

He has published over 50 articles, book chapters, and conference papers in planning, machine learning and information integration, as well as the book *Generating Abstraction Hierarchies: An Automated Approach to Reducing Search in Planning* (Kluwer Academic Publishers, 1993). He received the Best Paper Award at the 1994 Canadian Artificial Intelligence Conference. He served on the Senior Program Committee of the 1997 and 1998 National Artificial Intelligence Conference. He also co-chaired the 1998 AAAI Workshop on AI and Information Integration.

## 7 Planning and Scheduling Competitions

At AIPS-2000 we plan to hold both a planning and scheduling competition. The planning competition will be headed by Faheim Bacchus from the University of Waterloo and the scheduling competition will be run by David Smith from NASA Ames.

The primary objective of the planning competition will be *to contribute towards the advancement of planning research*. In particular, this will mean that primarily, effort will put into using the competition to disseminate information about open problems, successful approaches, useful test suites, etc. Choosing a winner will be less important.

Here is a list of initiatives that are under consideration for the planning competition. (It is unlikely that all of these will be accomplished, but some of them will.)

1. Streamline the “classical” planning competition. This will involve simplifying the current planning specification language; providing software so as to lessen the burden for researchers to adapt their planners (in particular, C parser code); having everything available well in advance, and even perhaps holding some of the rounds of the competition prior to the conference.
2. Extending the competition beyond classical planning. In particular, Michael Littman of Duke University has indicated a willingness to help organize an MDP/POMDP competition. Other types of planning that would be worth including in the competition would also include, plan repair and improvement, planning with resources constraints, planning in incompletely known environments with sensing. We aim to have at least one extension to the previous competition, and hopefully lay the ground work for more extensions to come on stream in future conferences.
3. A planning competition session at the main conference where awards can be handed out, and the results and lessons learned can be presented to the general conference.
4. Possibly a workshop prior to the conference for the competition participants, to discuss the lessons learned, the difficult problems, the easy problems, the successful techniques, the unsuccessful techniques, etc.
5. Possibly a follow up article about the competition submitted to the AI-magazine.